

Remarks

Reconsideration of this Application is respectfully requested.

Upon entry of the foregoing amendment, claims 1-22 and 26-34 are pending in the application, with claims 1, 6, 10, 16, 26, and 29-31 being the independent claims. Claims 1, 6, 10, 16, 26, and 29-31 are sought to be amended. These changes are believed to introduce no new matter, and their entry is respectfully requested.

Based on the above amendment and the following remarks, Applicant respectfully requests that the Examiner reconsider all outstanding rejections and that they be withdrawn.

Rejections under 35 U.S.C. § 103

Claims 1-5

Claims 1-5 are rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over U.S. Patent No. 6,292,895 to Baltzley ("Baltzley") in view of U.S. Patent No. 5,923,754 to Angelo et al. ("Angelo"), U.S. Patent No. 6,603,857 to Batten-Carew et al. ("Batten-Carew"), and further in view of U.S. Patent No. 5,499,298 to Narasimhalu et al. ("Narasimhalu"). Applicant respectfully traverses this rejection.

On page 5 of the Office Action, it was noted that "[t]he combination of Baltzley, Angelo, and Batten-Carew...does not explicitly disclose[s] encrypted header including the encrypted document key and encrypted access rules for the secured electronic file, the access rules for further protecting the document key and provide restrictive access to

the data." Applicant agrees. However, on page 5, it was noted that Narasimhalu allegedly cures the deficiencies of Baltzley, Angelo and Batten-Carew. In particular, the Examiner cited to column 5, lines 43-52, column 6, lines 37-44 and column 7, lines 29-65 of Narasimhalu.

Narasimhalu discusses a method and apparatus for controlling the dissemination of digital information. In particular, Narasimhalu notes that digital information is structured logically to incorporate usage history and an allowable access window before it is encrypted in a header portion and a body portion. (Narasimhalu, 2:58-62). Narasimhalu further describes a logical structure of sealed controlled information which includes a header 35 and a body 40. The header may include a medium signature 36, an access window 37 (AW), a total number of legal accesses allowed 38 (TAL), a number of legal accesses left 39 (LAL) and TAL number of encryption/decryption keys 41 (K_1 to K_{TAL}). (Narasimhalu, 5:43-56)

Further, Narasimhalu notes that "the Controller 45 decrypts the header 35 of the sealed COIN by using in step 88 the secret key DSK of the access device. As mentioned above, the secret key DSK is unknown to the Information Consumer 30. Next in step 90, the Controller 45 checks whether there are any legal access left by testing the value of LAL 38 for zero. If there are no legal accesses left, the value of $LAL_{38}=0$ and an evade processing module is invoked in step 92 which either devices the information access or erases the content of the medium." (Narasimhalu, 7:25-34).

Shown below is Figure 2 of Narasimhalu:

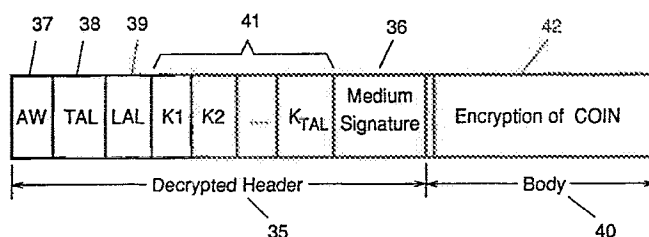


Figure 2

It was asserted on pages 6-7 of the Office Action that it would have been obvious to "further append access rules as taught by Narasimhalu with document key into header because 'Digital Information is structured logically to incorporate usage history and allowable access window before it is encrypted in a header portion and a body portion. The end user accesses the digital information with a tamper-proof controller information access device by decrypting the digital information. A controller disposed in the controller information access device permits end users to access transparently uncontrolled information.'" (see, Column 2, line 59-67)."

It is respectfully submitted that Narasimhalu does not cure the deficiencies of Baltzley, Angelo and Batten-Carew. As an example, claim 1 recites "the access rules configured to further protect the document key and provide restrictive access to the data portion." As provided above, Narasimhalu teaches a header 35 which includes a medium signature 36, an access window 37 (AW), total number of legal accesses allowed (TAL), a number of legal accesses left 39 (LAL) and TAL number of encryption/decryption keys 41(K₁ to K_{TAL}). These fields in the header 35 are not shown to protect the encryption/decryption keys 41(K₁ to K_{TAL}). The access window, TAL and LAL are merely used to protect the disseminated information. Rather, as noted above, in column 7, lines 25-34, the controller decrypts the header and then LAL is checked. However,

Narasimhalu does not say that what appears to have been interpreted as "access rules" is used to protect K_1 to K_{TAL} before the header is unencrypted. Thus, it is submitted that the teachings of Narasimhalu, in combination with Baltzley, Angelo and Batten-Carew fail to render the distinguishing features of claim 1 obvious because the encryption/decryption keys may be unencrypted without protection by the other values in the header. Thus, it is respectfully submitted that Baltzley, Angelo, Batten-Carew and Narasimhalu do not teach or suggest "the access rules configured to *further protect the document key* and provide restrictive access to the data portion" because none of Baltzley, Angelo and Batten-Carew teach access rules configured to further protect the document key, and Narasimhalu also fails to teach these features.

In addition, without acquiescing to the propriety of the rejection, claim 1 has been amended to clarify distinguishing features not discussed by Baltzley, Angelo, Batten-Carew and Narasimhalu. The amendment is supported, for example, by at least paragraph [0051] of the original specification.

In particular, claim 1 recites *inter alia*, "a key store configured to store a plurality of cryptographic key pairs, wherein the cryptographic key pairs include a respective public key and a respective private key, at least one of the cryptographic key pairs pertaining to a predetermined time, *being uniquely generated each day*." Batten-Carew teaches obtaining a secret number used to generate keys for a specific future time, such as twenty-years from today's date. However, Batten-Carew does not say that this secret number is uniquely generated each day. Rather, this secret number is based on a randomly generated number input into one-way functions for particular years, months, days and hours related to the specific future time. (Batten-Carew, 3:4-23, 4:13-16 and

Figure 2). Thus, it is submitted that claim 1 further distinguishes over Baltzley, Angelo, Batten-Carew and Narasimhalu, alone or in combination.

For at least the aforementioned reasons, claims 1 and its dependent claims 2-5 are not rendered obvious. Accordingly, Applicant respectfully requests the reconsideration and withdrawal of the rejection of claims 1-5.

Claims 6-22 and 26-31

Claims 6-22 and 26-31 are rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over U.S. Patent No. 6,892,306 to En-Seung et al. ("En-Seung") in view of Narasimhalu and Batten-Carew. Applicant respectfully traverses this rejection.

Independent claims 6, 10, 16, 26, 29, 30 and 31 each recite, *inter alia*, similar features to those discussed above with regard to claim 1. As an example, claims 6, 10, 16, 26, 29, 30 and 31 each recite "a time-based access key, being uniquely generated each day." Claims 6, 10, 16, 26, 29, 30 and 31 distinguish over Narasimhalu and Batten-Carew for similar reasons as claim 1, and further in view of their own respective features.

En-Seung does not cure the deficiencies of Narasimhalu and Batten-Carew that are discussed above. Accordingly, claims 6, 10, 16, 26, 29, 30 and 31 distinguish over En-Seung, Narasimhalu and Batten-Carew, alone and in combination. Claims 7-9, 11-15, 17-22, 27 and 28 depend from the above discussed independent claims and distinguish over En-Seung, Narasimhalu and Batten-Carew for at least the same reasons

as the independent claim they depend from and further in view of their own respective features.

Accordingly, Applicant respectfully requests reconsideration and withdrawal of the rejection of claims 6-22 and 26-31.

Claims 32-34

Claims 32-34 are rejected under 35 U.S.C. § 103(a) as being unpatentable over En-Seung in view of Narasimhalu and Batten-Carew and further in view of U.S. Patent No. 6,851,050 to Singhal et al. ("Singhal"). Applicant respectfully traverses this rejection.

For at least the reasons provided above, the features of claims 6, 26 and 29 are not obvious in view of En-Seung, Narasimhalu and Batten-Carew. Further, Singhal fails to cure the deficiencies of these references as provided above. Accordingly, claims 6, 26 and 29 distinguish over En-Seung, Narasimhalu, Batten-Carew and Singhal, alone or in combination. Because claims 32-34 depend from independent claims 6, 26 and 29, claims 32-34 also distinguish over En-Seung, Narasimhalu, Batten-Carew and Singhal, alone or in combination, for at least the reasons above and further in view of their own respective features.

In particular, claim 32 recites "determining whether a time-based access key is already available for a predetermined time, otherwise generating a time-based access key for the predetermined time." On page 24 of the Office Action, the Examiner cited to column 18, lines 30-60 of Singhal. Singhal merely teaches a client communicating with

an access point. The client obtains a session key if one does not exist to enable link-level encryption. (Singhal, 18:30-60). However, claim 32 is not directed to checking to see if the time-based key exists, but whether it is available. Singhal is unrelated to the features recited in claim 32 and fails to cure the deficiencies of En-Seung, Narasimhalu and Batten-Carew.

Accordingly, Applicant respectfully requests the reconsideration and withdrawal of the rejection of claims 32-34.

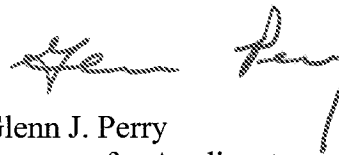
Conclusion

All of the stated grounds of rejection have been properly traversed, accommodated, or rendered moot. Applicant therefore respectfully requests that the Examiner reconsider all presently outstanding rejections and that they be withdrawn. Applicant believes that a full and complete reply has been made to the outstanding Office Action and, as such, the present application is in condition for allowance. If the Examiner believes, for any reason, that personal communication will expedite prosecution of this application, the Examiner is invited to telephone the undersigned at the number provided.

Prompt and favorable consideration of this Amendment and Reply is respectfully requested.

Respectfully submitted,

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